

Abstract of the Invention

A semiconductor imaging device, for use, for example,
5 in medical diagnosis and non-destructive testing, includes
a radiation detector semiconductor substrate and a readout
substrate connected to the detector by means of low
temperature solder bumps. A low temperature solder is
preferably a lead-tin based solder having a melting point
10 below that of eutectic lead-tin solder. Preferred
embodiments of such low temperature solder include bismuth
based alloys such as, for example, the eutectic (52wt-%Bi,
32wt-%Pb, 16wt-%Sn) alloy which has a melting point under
100°C.

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